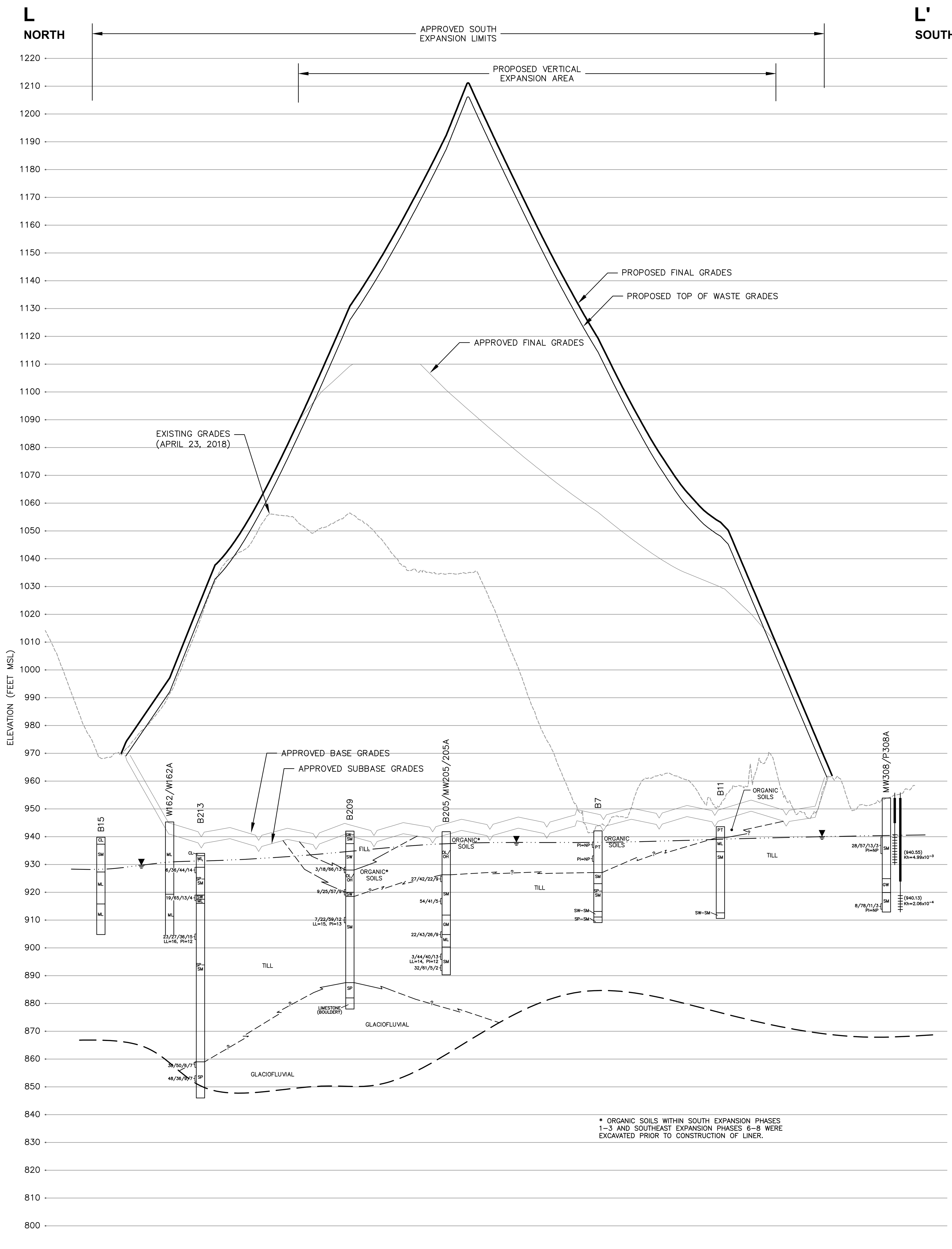


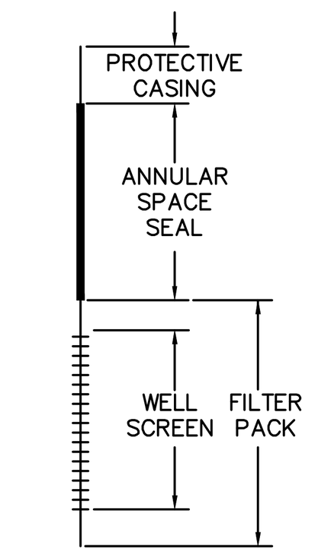
* ORGANIC SOILS WITHIN SOUTH EXPANSION PHASES 1–3 AND SOUTHEAST EXPANSION PHASES 6–8 WERE EXCAVATED PRIOR TO CONSTRUCTION OF LINER.

USCS CLASSES

GW	GRAVEL, WELL GRADED, LITTLE OR NO FINES
GP	GRAVEL, POORLY GRADED, LITTLE OR NO FINES
GM	SILTY GRAVEL
GC	CLAYEY GRAVEL
SW	SAND, WELL GRADED, LITTLE OR NO FINES
SP	SAND, POORLY GRADED, LITTLE OR NO FINES
SP–SM	SAND, POORLY GRADED WITH SILT
SM	SILTY SAND
SC	CLAYEY SAND
ML	SILT
CL–ML	SILTY CLAY
CL	LEAN CLAY
CH	FAT CLAY
OL	ORGANIC SILT OR CLAY, LOW PLASTICITY
OH	ORGANIC SILT OR CLAY WITH HIGH PLASTICITY
PT	PEAT

SYMBOLS AND TEST RESULTS

LL	LIQUID LIMIT
PI	PLASTICITY INDEX
NP	NON–PLASTIC
OC	ORGANIC CONTENT (%)
MC	MOISTURE CONTENT (%)
Kv	LABORATORY VERTICAL HYDRAULIC CONDUCTIVITY (cm/sec)
Kh	FIELD HORIZONTAL HYDRAULIC CONDUCTIVITY (cm/sec)
0/30/42/28	PERCENT GRAVEL, SAND, SILT, AND CLAY
0/87/13	PERCENT GRAVEL, SAND, AND SILT PLUS CLAY
(929.16)	GROUNDWATER ELEVATION ON 4/4/11 (FEET ABOVE MEAN SEA LEVEL)
▼ · · · —	WATER TABLE (SEE NOTE 5)
———	CONTACT BETWEEN MAJOR GEOLOGIC UNITS (DASHED WHERE INFERRED)
— — —	BEDROCK SURFACE (SEE NOTE 6)



WELL DETAIL

WELL CONSTRUCTION SHOWN FOR ACTIVE WELLS ONLY, AS OF APRIL 2011.

0 200

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 20'
VERTICAL EXAGGERATION = 10X

NOTES:

1. THE DRAWING WAS DERIVED FROM SCS ENGINEERS DECEMBER 2010 GLACIER RIDGE SOUTHEAST EXPANSION FEASIBILITY REPORT WITH THE FOLLOWING MODIFICATIONS: PROPOSED FINAL GRADES AND HIGH WATER TABLE MAP GROUNDWATER SURFACE.
2. LINES CORRELATING STRATA ARE BASED ON INTERPOLATION BETWEEN BORINGS AND MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
3. FOR A DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT INDIVIDUAL BORINGS OR COMPLETE MONITORING WELL CONSTRUCTION INFORMATION, REFER TO THE BORING AND MONITORING WELL INFORMATION APPENDIX.
4. ELEVATIONS ARE SHOWN IN REFERENCE TO THE USGS MEAN SEA LEVEL DATUM.
5. WATER TABLE SURFACE SHOWN BETWEEN BORINGS BASED ON THE HIGH WATER TABLE MAP SHEET 4 OF 24, (APRIL 4, 2011).
6. THE BEDROCK SURFACE ILLUSTRATED ON THE CROSS SECTIONS IS INFERRED AND IS BASED ON THE TOP OF BEDROCK MAP, SHEET 18 OF 24.
7. MW408, P408A AND P401D WATER LEVELS WERE NOT MEASURED DURING APRIL 2011. RECORDED WATER LEVELS ARE THEREFORE FROM APRIL 9, 2012.
8. THE EXISTING GROUND SURFACE AND PROPOSED FINAL GRADES OF THE VERTICAL EXPANSION ARE BASED ON INFORMATION PRESENTED ON SHEETS 3 AND 22, RESPECTIVELY.
9. THE WATER TABLE SURFACE SHOWN ON THE CROSS SECTION IS BASED ON CONDITIONS PRIOR TO THE INSTALLATION OF THE GRADIENT CONTROL AND/OR UNDERDRAIN SYSTEMS OR FEATURES UNDER THE SOUTHEAST EXPANSION. THE GROUNDWATER GRADIENT CONTROL SYSTEM WAS OPERATIONAL UNDER THE SOUTH EXPANSION PHASES 1A, 2A, AND 3A AT THE TIME OF THE DEPICTED WATER LEVELS. THE WATER LEVEL MEASURED AT GRADIENT CONTROL MONITORING POINT GCM–1 UNDER PHASE 1A OF THE SOUTH EXPANSION WAS 930.56 FEET ABOVE MEAN SEA LEVEL (AMSL) IN APRIL 2011. THE GROUNDWATER ELEVATION AT MONITORING POINT GCM–1 HAS AVERAGED 929.9 FEET AMSL FROM SEPTEMBER 2006 THROUGH APRIL 2018.

GENERAL DESCRIPTION OF MAJOR GEOLOGIC UNITS:

UNCONSOLIDATED DEPOSITS

ORGANIC SOILS

GENERALLY BLACK PEAT (PT), FIBROUS TO WEATHERED, WITH MINOR AMOUNTS OF ORGANIC SILT (OL) AND/OR CLAY (OH) DEPOSITED IN WETLANDS.

GLACIOLACUSTRINE SEDIMENTS

GENERALLY GRAY OR DARK GRAY SILT AND CLAY (CL, CL–ML, ML), DEPOSITED IN A GLACIAL LAKE ENVIRONMENT. INCLUDES DISCONTINUOUS LENSES OF GLACIOFLUVIAL SAND AND GRAVEL.

GLACIAL TILL

GENERALLY BROWN OR GRAY SILTY, SANDY DIAMICTON (SM, GM, ML) DEPOSITED BY OR FROM GLACIAL ICE AS BASAL TILL. INCLUDES DISCONTINUOUS LENSES OF SAND AND SILT/CLAY. TWO TILL UNITS MAY BE PRESENT, INCLUDING THE HORICON MEMBER OF THE HOLY HILL FORMATION AND AN OLDER TILL THAT IS DENSE AND GRAYER IN COLOR. THE LOWER TILL IN SOME LOCATIONS INCLUDES WEATHERED SHALE BEDROCK.

GLACIOFLUVIAL SEDIMENTS

GENERALLY GRAY SAND AND GRAVEL (GP–GM, SP–SM, SW, GW) DEPOSITED BY GLACIAL MELTWATER. INCLUDES DISCONTINUOUS LENSES OF SILT/CLAY.

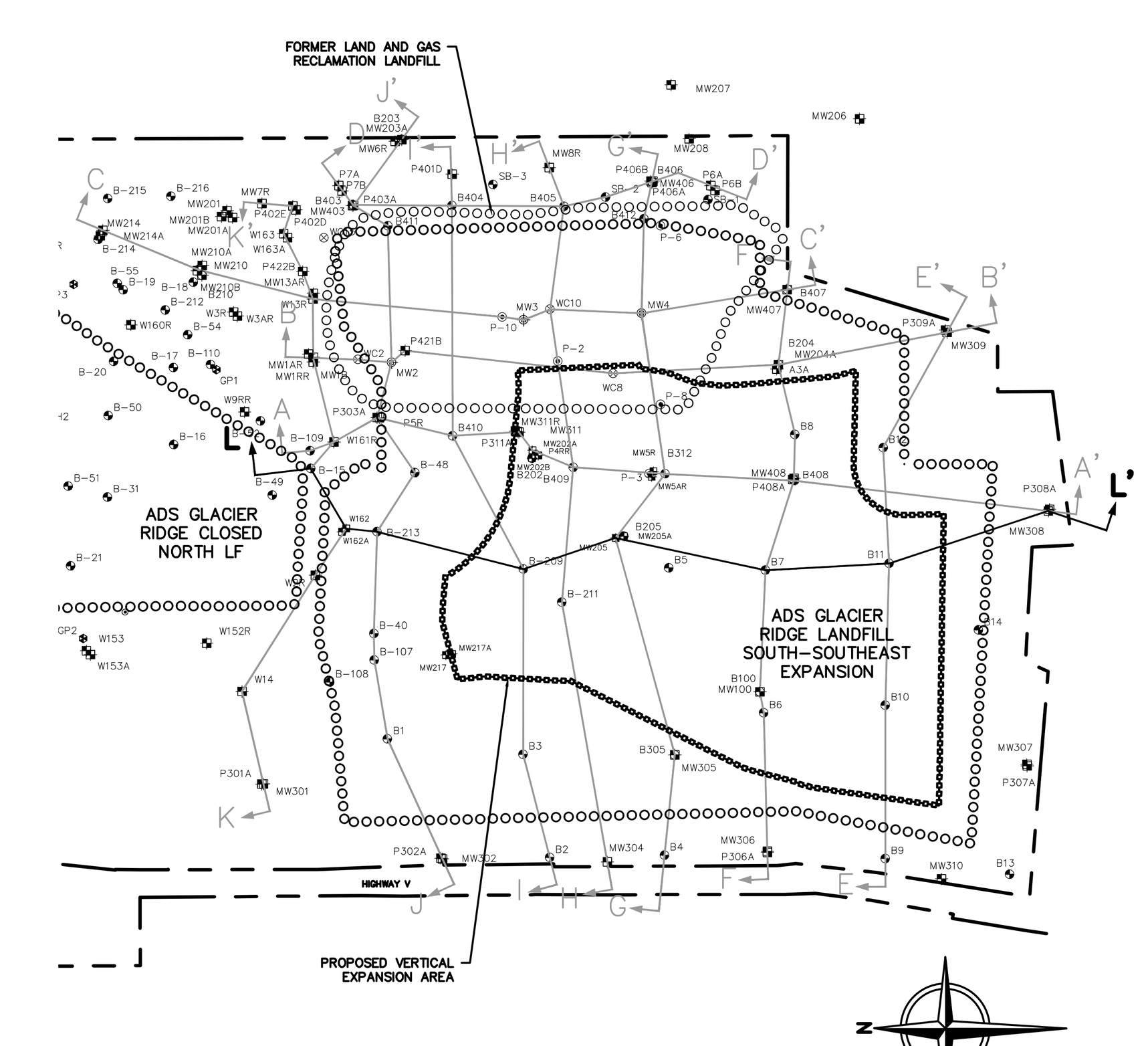
BEDROCK

SHALE – MAQUOKETA FORMATION

GREENISH GRAY SHALE WITH SILTY DOLOMITIC BEDS. CLAY COMPOSITION IS PRIMARILY ILLITE. LATE ORDOVICIAN AGE.

DOLOMITE – SINNIPEE GROUP

WHITE TO LIGHT GRAY MASSIVE DOLOMITE AND SHALY DOLOMITE; WITH CHERT. MIDDLE ORDOVICIAN AGE.



CROSS SECTION LOCATION
SCALE: 1" = 600'

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 9/14/2018 DRAWN BY SSW DESIGNED BY . CHECKED BY JCO APPROVED BY MJT

cornerstone
A TETRA TECH COMPANY

ADVANCED DISPOSAL SERVICES
GLACIER RIDGE LANDFILL
DODGE COUNTY, WISCONSIN

FEASIBILITY REPORT
SOUTH - SOUTHEAST VERTICAL EXPANSION
GEOLOGIC CROSS SECTION L-L'

SHEET NO. 17

PROJECT NO. 180250

1" 1/2" 0" 1"